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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,278	03/17/2005	Hiroshi Okawa	450100-05169	2804

7590 11/12/2008
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EXAMINER

HERNANDEZ, NELSON D

ART UNIT	PAPER NUMBER
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2622

MAIL DATE	DELIVERY MODE
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11/12/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/528,278	Applicant(s) OKAWA, HIROSHI	
	Examiner Nelson D. Hernández Hernández	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The Examiner acknowledges the amended claims filed on August 4, 2008.

Claims 1-3, 5-7, and 9 have been amended.

Response to Arguments

2. Applicant's arguments with respect to **claims 1, 5, and 9** have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 5, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asada et al., US 2002/0021364 A1 in view of Tonomura, JP 11-177930 A.**

Regarding claim 1, Asada et al. discloses an image pick-up device (See fig. 8) comprising:

image signal generation means (CCD 1 as shown in fig. 8) for generating an image signal of a variable frame-rate picked-up image (With the control of timing using

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the DDC driver 2 and the drive pulse switching circuit 3 as shown in fig. 8; see explanation of elements 2 and 3 as shown in page 3, ¶ 0040-0043; page 4, ¶ 0055);

signal-recording-and-reproducing means for recording and reproducing the image signal (VCR unit 24 connected to the image pick-up device as shown in fig. 8);

frame rate conversion means (Page 3, ¶ 0044-0046; page 4, ¶ 0055-0059) for converting frame rates of the image signal generated by the image signal generation means and the image signal reproduced by the signal-recording-and-reproducing means into a display frame rate (Note that the camera signal processing circuit 5 changes the frame rate of the image signal generated by the image signal generation means and the reproduced signal converter 25, also changes the frame rate of the image signal reproduced by the signal-recording-and-reproducing means into a display frame rate; see page 3, ¶ 0044-0046; page 4, ¶ 0055-0059);

monitor image signal generation means (See VCR 24 as shown in fig. 8 and reproduced signal converter 25 as shown in figs. 8-10) for generating a monitor image signal using an image signal having the display frame rate set by the frame rate conversion means (page 4, ¶ 0055 – page 5, ¶ 0066); and

control means (page 3, ¶ 0043; page 4, ¶ 0059-0060) for controlling operations of the image signal generation means and the signal-recording-and-reproducing means,

wherein if it is instructed to reproduce the image signal recorded in the signal-recording-and-reproducing means during recording of the image signal, the control means causes the signal-recording-and-reproducing means to reproduce the recorded image signal at a reproduction frame rate (Page 4, ¶ 0060-0061; page 4, ¶ 0055-0059)

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and the control means causes the monitor image signal generation means to generate the monitor image signal that displays on one screen (using viewfinder 6 as shown in fig. 8) a picked-up image based on the image signal generated by the image signal generation means (Page 4, ¶ 0055-0061) and a reproduced image based on the image signal reproduced by the signal-recording-and-reproducing means (Page 4, ¶ 0055-0061) (Page 3, ¶ 0043; page 4, ¶ 0059-0061).

Although Asada et al. discloses the concept of converting a received image video from one frame rate to a different frame rate, Asada et al. does not explicitly disclose a frame addition processing means for continuously varying the frame rates of the image signal; and that said monitor signal generation means generates the image signal based on the varied image signal by the frame addition processing means.

However, Tonomura discloses an image pick-up device (See fig. 1) comprising: image signal pick-up means (CCD 1 as shown in fig. 1) for picking up an image signal with a varied frame-rate (See Machine English Translation, page 3, ¶ 0013-0014); frame-addition processing means for generating a first image signal, from the variable frame-rate picked-up image signal, with a selected output frame rate (Tonomura discloses adjusting the image signals captured at different frame rates by extending or compressing the video signal so that the complete video signal has a common frame rate for reproduction. By teaching extending a video signal frame rate (i.e. 0.5X to 1X), Tonomura inherently discloses continuously varying the frame rates of the image signal by performing addition of a number of frames to the signal with a lower frame rate to compensate for a desired frame rate i.e. 1X) (See Machine English Translation, Page 3,

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¶ 0013 – page 4, ¶ 0021; page 5, ¶ 0025); frame rate conversion means (See Machine English Translation, Page 3, ¶ 0013 – page 4, ¶ 0021) for converting a frame rate of a second image signal (having a different rate) to the output frame rate of the first image signal (See Machine English Translation, Page 3, ¶ 0013 – page 4, ¶ 0021); and signal generation means (Fig. 1: 6) for generating a monitor image signal by using the first image signal and the second image signal whose frame rates are matched with each other by the frame rate conversion means (See Machine English Translation, Page 3, ¶ 0013 – page 4, ¶ 0021; page 5, ¶ 0025). Tonomura further discloses that performing the frame addition process as discussed would improve the image pick-up device by allowing change of rate so that arbitrary field rates can be realized allowing a convenient synchronization between frames (Machine English Translation, page 3, ¶ 0010; page 5, ¶ 0028).

Therefore, taking the combined teaching of Asada et al. in view of Tonomura as a whole, it would have been obvious to one of an ordinary skill in the art at the time the invention was made to apply the concept of having a frame rate converter capable of either increasing or decreasing the frame rate of the image signal, wherein when increasing the frame rate of the image signal would apply a frame addition processing continuously varying the frame rates of the image signal so that the image signal can be reproduced based on the image signal with the modified frame rate as taught in Tonomura to modify the teaching of Asada et al. by allowing the generation of either an increase or reduction of the image signal frame rate, wherein increasing the image signal frame rate is performed by having a frame addition processing continuously

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varying the frame rates of the image signal from the variable frame-rate picked-up image signal, with a selected output frame-rate to have the modified image signal reproduced on the display. The motivation to do so would have been to improve the image pick-up device by allowing change of rate so that arbitrary field rates can be realized allowing a convenient synchronization between frames as suggested by Tonomura (Machine English Translation, page 3, ¶ 0010; page 5, ¶ 0028).

Regarding claim 5, limitations have been discussed and analyzed in claim 1.

Regarding claim 9, limitations have been discussed and analyzed in claim 1.

5. Claims 2-4, and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asada et al., US 2002/0021364 A1 in view of Tonomura, JP 11-177930 A as applied to claim 1 above, and further in view of Morio et al., US Patent 4,268,875.

Regarding claim 2, the combined teaching of Asada et al. in view of Tonomura does not explicitly disclose that when image confirmation is performed as the reproduction instruction, the control means sets a position that is ahead of a recording position where the image confirmation is performed by a preset number of frames, as a reproduction start position of the signal-recording-and-reproducing means.

However, Morio et al. discloses a video reproduction apparatus (See fig. 11) capable of reproducing video at variable frame rates, wherein when the reproduction apparatus is instructed to reproduce the video at an arbitrary speed other than the normal speed, said apparatus would sets a delay from a position ahead of the recording

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position where this image confirmation is performed by a preset number of frames, as a reproduction start position of the reproducing apparatus (Morio et al. discloses that when changing the frame rate to a different frame rate, apparatus would create a delay by a predetermined number of fields or frames ahead from when the change of frame rate is made with the purpose of avoiding any disturbance of the synchronizing signals of the reproduced video signal when the reproducing is effected in a slow-motion, quick-motion or still motion; col. 1, lines 32-58; col. 5, line 33 – col. 6, line 20; col. 7, lines 20-38).

Therefore, taking the combined teaching of Asada et al. Asada et al. in view of Tonomura and further in view of Morio et al. as a whole, it would have been obvious to one of an ordinary skill in the art at the time the invention was made to apply the concept of setting a position ahead of a of a recording position or a delay as a reproduction start position of a reproducing means as taught in Morio et al. to modify the teaching of Asada et al. and Tonomura so that that when image confirmation is performed as the reproduction instruction, the control means sets a position that is ahead of a recording position where the image confirmation is performed by a preset number of frames, as a reproduction start position of the signal-recording-and-reproducing means. The motivation to do so would have been to avoid any disturbance of the synchronizing signals of the reproduced video signal when the reproducing is effected in a slow-motion, quick-motion, or still motion as suggested by Morio et al. (Col. 1, lines 32-58).

Regarding claim 3, the combined teaching of Asada et al. Asada et al. in view of Tonomura and further in view of Morio et al. as discussed and analyzed in claim 2 teaches that control means uses a change in frame rate of the variable frame-rate picked-up image as the reproduction instruction (Morio et al. discloses that when changing the frame rate to a different frame rate, apparatus would create a delay by a predetermined number of fields or frames ahead from when the change of frame rate is made; col. 1, lines 32-58; col. 5, line 33 – col. 6, line 20; col. 7, lines 20-38), to set a range from a recording position where the change is made to a position that is distant from this recording position by a preset number of frames, as a reproduction position which is used by the signal-recording-and-reproducing means (Morio et al. discloses that when changing the frame rate to a different frame rate, apparatus would create a delay by a predetermined number of fields or frames ahead from when the change of frame rate is made with the purpose of avoiding any disturbance of the synchronizing signals of the reproduced video signal when the reproducing is effected in a slow-motion, quick-motion or still motion; col. 1, lines 32-58; col. 5, line 33 – col. 6, line 20; col. 7, lines 20-38).

Regarding claim 4, the combined teaching of Asada et al. Asada et al. in view of Tonomura and further in view of Morio et al. as discussed and analyzed in claim 2 teaches that if a post-change variable frame rate is higher than the reproduction frame rate, the control means causes the signal-recording-and-reproducing means to start reproduction together with the reproduction instruction (Asada et al. discloses that when a post-change variable frame rate is higher than the reproduction frame rate, the control

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means causes the signal-recording-and-reproducing means to start reproduction together with the reproduction instruction; page 3, ¶ 0043; page 4, ¶ 0059-0061) and, if the post-change variable frame rate is lower than the reproduction frame rate, delays starting of the reproduction with respect to the reproduction instruction in accordance with the post-change variable frame rate (Morio et al. discloses that when changing the frame rate to a different frame rate, apparatus would create a delay by a predetermined number of fields or frames ahead from when the change of frame rate is made with the purpose of avoiding any disturbance of the synchronizing signals of the reproduced video signal when the reproducing is effected in a slow-motion, quick-motion or still motion; col. 1, lines 32-58; col. 5, line 33 – col. 6, line 20; col. 7, lines 20-38).

Regarding claim 6, limitations have been discussed and analyzed in claim 2.

Regarding claim 7, limitations have been discussed and analyzed in claim 3.

Regarding claim 8, limitations have been discussed and analyzed in claim 4.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernández Hernández whose telephone number is (571)272-7311. The examiner can normally be reached on 9:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nelson D. Hernández Hernández
Examiner
Art Unit 2622

NDHH
November 6, 2008

/Lin Ye/
Supervisory Patent Examiner, Art Unit 2622